



# SEATTLE

## URBAN QUALITY EVALUATION

### OF ALASKAN WAY VIADUCT REPLACEMENT STRATEGIES

GUIDING PRINCIPLE 4: ENHANCE SEATTLE'S WATERFRONT, DOWNTOWN  
& ADJACENT NEIGHBORHOODS AS A PLACE FOR PEOPLE

GEHL ARCHITECTS 2008

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# INTRODUCTION & PHILOSOPHY







# FOR BETTER 'PEOPLE' QUALITY

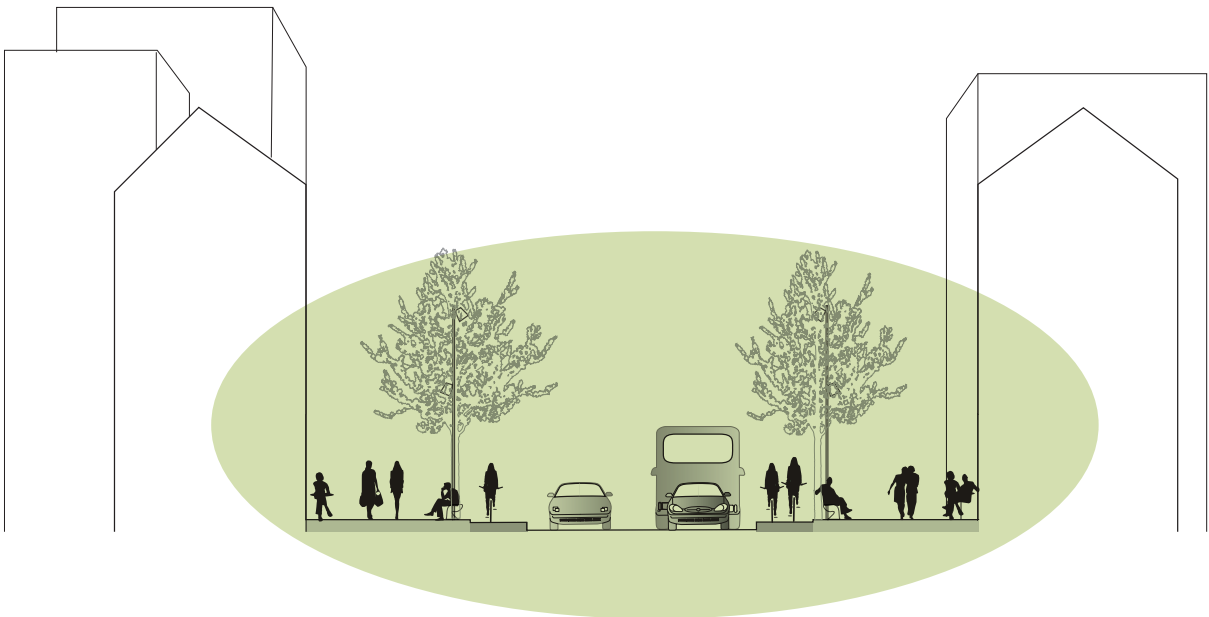
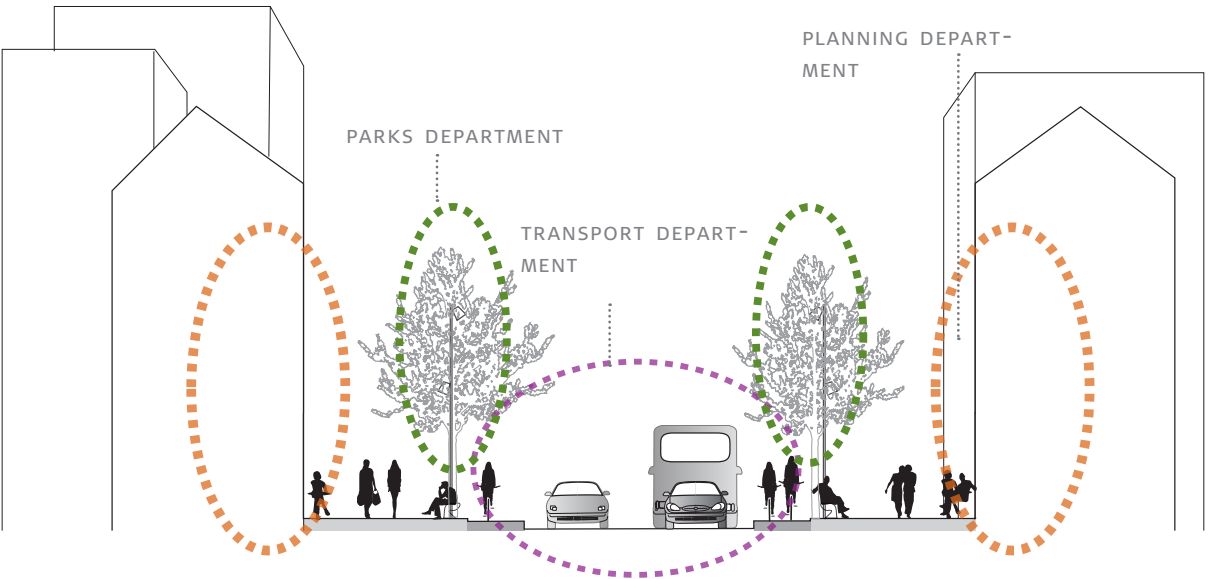
The design of cities is often undertaken by addressing the distinct systems at work: buildings by the Building Department, traffic by the Traffic Department, vegetation and landscape by the Parks Department, bicycles by the Bicycle Department. There is never a People or a Life Department!

GEHL Architects has developed working methods for dealing with planning and urban design in which "people activities" in the city are considered first. Quality of spaces is analyzed based on criteria developed from the perspective of people. Recommendations are made to increase high quality public realms, improving urban quality--- and LIFE.

We offer an evaluation of the proposed scenarios based on our understanding and research of cities that work for people. This approach recognizes people as the generator of spaces.

Good cities take time to develop. People need time to cultivate new habits. When this happens the city responds accordingly: new places develop, new habits develop and the city becomes a better and better place for people. Only when appropriate decisions are made and implemented carefully over time --always remaining true to the PEOPLE perspective-- will the city develop LIFE.

Seattle already has a fine template for an active, healthy downtown. The waterfront invites possibilities for recreation, commercial activities and spontaneous or unplanned events. It also provides a place of prospect, in this city of views and hills. The physical fabric has room for private vehicles, public transportation, bicyclists and pedestrians.



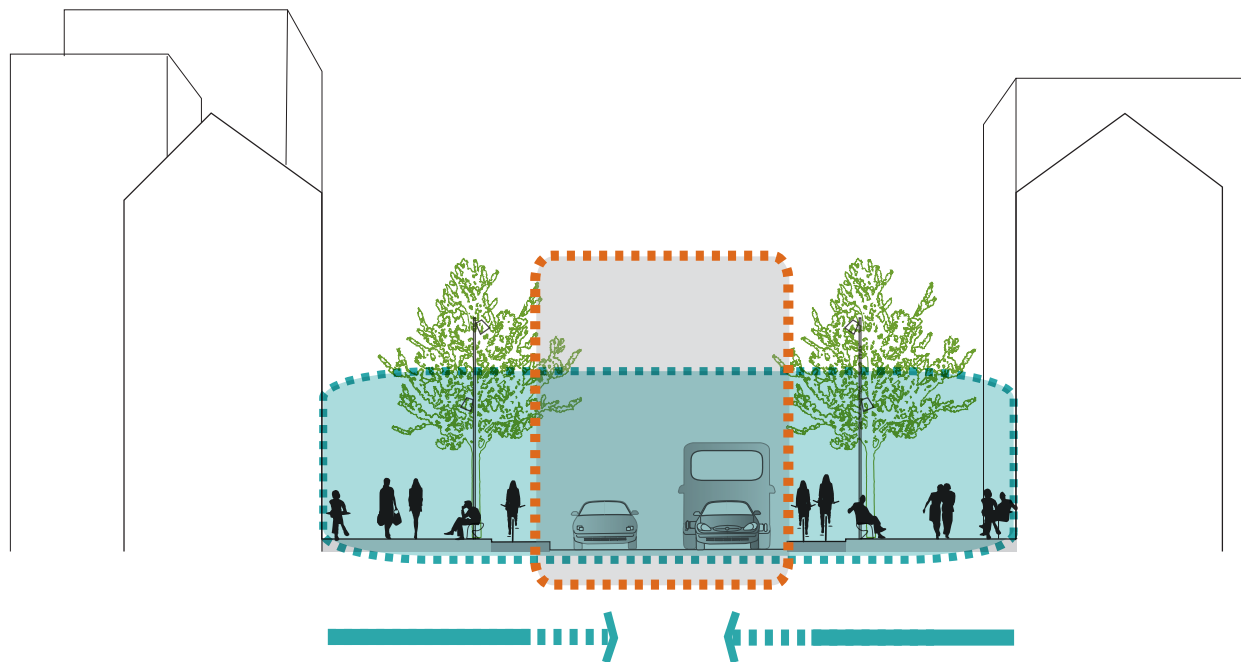
A HOLISTICALLY COMMISSIONED, IMPLEMENTED AND MAINTAINED PUBLIC STREET

## WHAT IS THE TASK?

### MAIN QUESTIONS THAT NEED TO BE CONSIDERED:

- HOW TO INVITE MORE PEOPLE TO WALK?
- HOW TO INCREASE THE AMOUNT AND RANGE OF CYCLISTS, BOTH THOSE WHO COMMUTE AND THOSE WHO ARE INTERESTED IN RECREATION?
- HOW TO CREATE AN INCLUSIVE CITY THAT INVITES MANY PEOPLE?
- HOW TO INCREASE THE AMOUNT OF TIME PEOPLE SPEND IN THE CITY?
- HOW TO INCREASE THE POSSIBILITIES FOR NEW ACTIVITIES, SUCH AS MARKETS, OUTDOOR CAFES, OUTDOOR EVENTS?

### WHAT KIND OF PLACE WOULD WE LIKE SEATTLE TO BE?



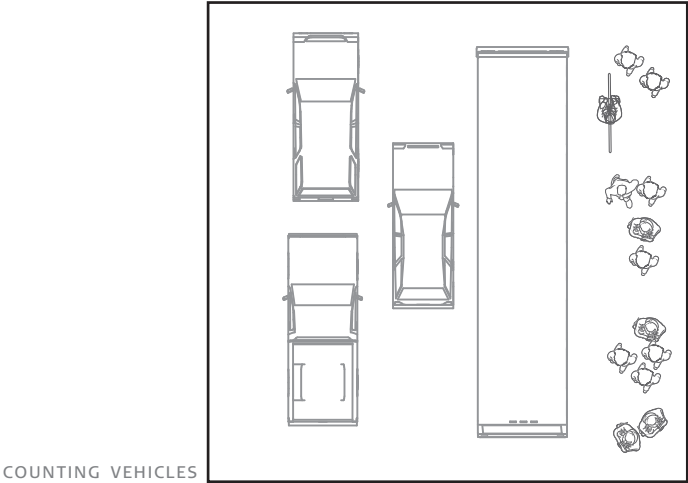
# CAPACITY STUDY: COUNT TRAFFIC AND PEOPLE!

We need to think of traffic as people --not just as vehicles. An evaluation or design that considers traffic first and foremost is guaranteed to result in streets fit for vehicular traffic, but not necessarily for bicyclists or pedestrians.

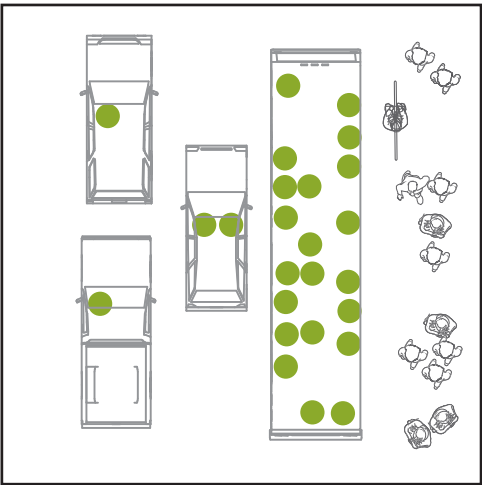
A more comprehensive evaluation or design begins at the building edges, with the scale and experience of a person moving at an average speed of 3 miles per hour. The bicycle comes next, still discernable as a person but at slightly higher speeds. Slower vehicular traffic follows, and higher speed traffic is furthest from the pedestrian space. Using this method, capacity is considered for independent vehicles, people using public transport, bicyclists and pedestrians concurrently.

The number of people must also be considered when looking at traffic. If only vehicles are counted, the opportunity for public transport is neglected. We must look inside of the vehicles and consider the actual numbers of people that are moving through the city.

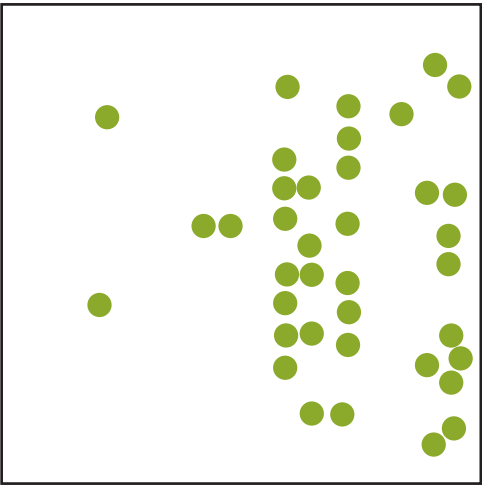
Thus, the question is:  
How many people can move through the public realm and what would we like the modal split to be?



COUNTING VEHICLES



COUNTING PEOPLE IN VEHICLES



COUNTING AND CONSIDERING ALL THE PEOPLE IN THE STREET - ALSO PEDESTRIANS AND BICYCLISTS.

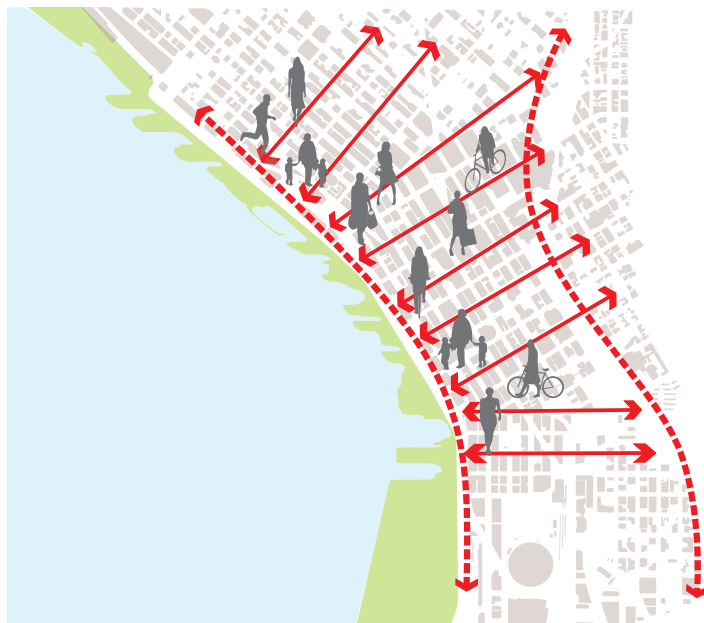
## SEGREGATED AREAS... OR INTEGRATED NETWORK?



SEGREGATED AREAS

Seattle is well-positioned to develop a rich and vibrant network in the Center City and Waterfront areas.

Depending on how choices are made, the city may either become more segregated or more integrated; it may become a city defined by its barriers or by its networks.



INTEGRATED NETWORK

This is a once-in-a-lifetime opportunity to develop a vision for the city on a new level. To create a better life demands the big question: What do we want the city to be? If the answer is, "A fine city for people," then traffic capacity cannot be increased and thinking cannot center on vehicles.

If the only issue is to accommodate today's traffic volumes, then all scenarios serve this end. But the bigger issue is *how* this should be done, and whether the quality of the city will be destroyed, diminished or strengthened by the solution.

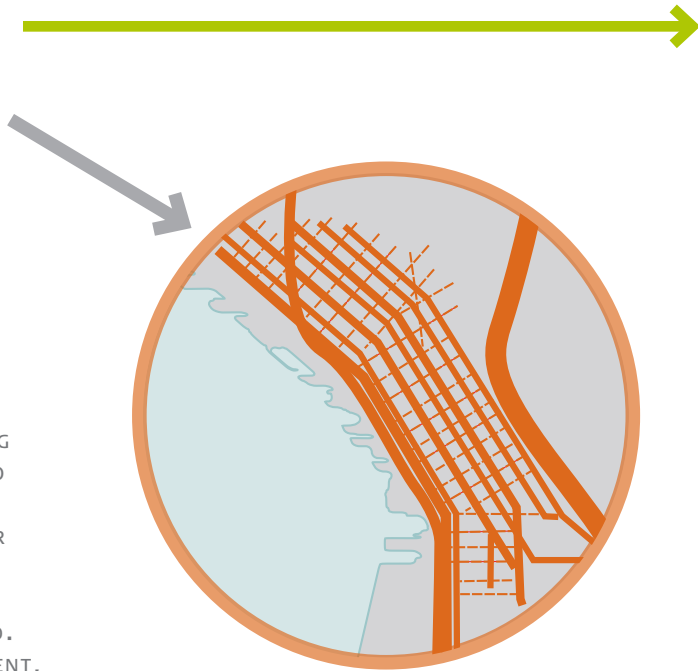
# TOWARDS A VISIONARY TRAFFIC SYSTEM FOR THE 21<sup>ST</sup> CENTURY



## THE SITUATION TODAY

A TRAFFIC SYSTEM HAS DEVELOPED OVER A LONG PERIOD OF TIME. IS THIS SYSTEM CONNECTED TO A VISION FOR THE KIND OF CITY WE WANT TO CREATE, OR DID IT JUST BECOME THIS WAY OVER TIME?

PARTS OF THE SYSTEM NEED TO BE REARRANGED. HOW DO WE WANT TO MAKE THIS REARRANGEMENT, AND WHAT IMPACT WILL IT HAVE ON THE CITY IN THE FUTURE?



## WHAT THE 8 SCENARIOS OFFER:

WE HAVE TO REPLACE THE SAME CAPACITY THAT WE HAVE TODAY, AND EVEN ADD MORE...

PURSuing TRAFFIC CAPACITY IS AN ENDLESS TASK. A RULE OF THUMB: THE MORE CARS WE INVITE, THE MORE CARS WILL COME; THEREFORE, THE SYSTEM WILL NEVER BE SUFFICIENT. TRYING TO 'SOLVE' THE TRAFFIC PROBLEMS ENCOUNTERED IN THE CITY TODAY WILL ONLY LEAD TO LARGER STREETS AND A MORE CONGESTED TRAFFIC NETWORK. ONLY THE LEFTOVER SPACES WILL REMAIN FOR PEOPLE. INVITING MORE AND MORE CARS MAKES IT WORSE AND WORSE FOR PEOPLE.

IS THIS REALLY WHAT SEATTLE WANTS?



## VISIONARY THINKING:

FIRST WE NEED TO ASK OURSELVES: WHAT KIND OF CITY AND CITY LIFE DO WE WANT? WOULD WE LIKE TO INVITE MORE PEOPLE TO SPEND TIME IN THE CITY? DO WE WANT PEOPLE TO TRAVEL TO OUR CITY BECAUSE IT IS SO GREAT TO BE IN?

SECONDLY, HOW CAN WE CREATE A TRAFFIC SYSTEM THAT SUPPORTS THESE GOALS?

A WHOLE NEW CITY OR TRAFFIC SYSTEM CAN NOT BE CREATED OVERNIGHT. IT IS A STEP-BY-STEP PROCESS, BUT IF EACH STEP IS DIRECTED TOWARD AN OVERALL VISION, A SLOW AND STEADY TRANSFORMATION WILL BE POSSIBLE. INCREMENTAL STEPS ALLOW TIME FOR HABITS TO ADJUST AND CULTURE TO DEVELOP.

SEATTLE HAS THAT OPPORTUNITY NOW, AS IT IS ABOUT TO MAKE A MAJOR **DECISION** THAT WILL DETERMINE WHAT KIND OF CITY IT WILL BE IN THE FUTURE.

SEATTLE HAS THE OPPORTUNITY TO LAY A FOUNDATION FOR A NEW TRAFFIC SYSTEM WORTHY OF THE 21<sup>ST</sup> CENTURY. THEREFORE, IT IS CRUCIAL TO ENVISION HOW WE WISH SEATTLE TO BE IN THE FUTURE - AND WORK TOWARD THAT GOAL.

## SUMMARY OF PHILOSOPHY:

- IN ORDER TO EVALUATE URBAN QUALITY WE MUST FOCUS ON TRAFFIC *AND* PEOPLE.  
THUS, WE START WITH THE QUESTION: HOW MANY PEDESTRIANS CAN THE PUBLIC REALM CARRY?
- NOT ONLY A TRAFFIC CAPACITY STUDY!  
A 'HIGH QUALITY CITY LIFE' CAPACITY STUDY FOCUSES ON PEOPLE AND BUILDS A TRAFFIC SYSTEM BASED ALSO ON PEDESTRIAN AND BICYCLIST NEEDS.
- THINK 'BLUE SKY': WHAT VISIONS DO WE HAVE FOR THE CITY?  
THIS IS SEATTLE'S CHANCE TO LEAD THE WAY IN HIGH QUALITY SUSTAINABLE CITY LIVING, TOWARD A WELL-INTEGRATED CITY.
- EACH STEP SHOULD MOVE TOWARD A LARGER GOAL, AND THE FIRST STEPS SHOULD BECOME SUCCESSES WITH WHICH TO BUILD SUPPORT AND A NEW PEOPLE-FOCUSED CULTURE
- CREATE A GOOD CITY WHERE *BOTH* WATERFRONT AND DOWNTOWN ARE WINNERS!!!

# PRINCIPLES & BEST PRACTICES







# SCALE AND SPEED INFLUENCE HOW WE PERCEIVE A SPACE

## 3 MPH SCALE

The human being is a slow-moving creature with an animal's senses. We move at approximately 3 mph., and to accommodate that speed a streetscape must provide repeated stimuli so as to be perceived as interesting to walk along. The human brain needs 1000 stimuli per hour (or 1 stimulus per 4 seconds) to stay engaged. A streetscape with a high level of variation, many details, a good human scale (where we feel comfortable) and interesting things to look at is perceived as a delightful street to walk along.



varied streetscape



sensory experiences



invitation and possibility  
for human interaction

## 40 MPH SCALE

When driving a car, for instance at a speed of 40 mph, we are not able to perceive as many details as when we are walking. Noise and pollution distract the senses of people walking beside fast-driving cars, making it an unpleasant experience. Streets that have been planned to accommodate a speed of 40 mph tend to be boring and unattractive to walk along.



'detailing' in favor of cars



no stimuli for pedestrians



facade communicating to cars,  
not pedestrians

## PLAN FOR THE SLOW MOVING HUMAN BEING!

STREET DESIGN AND TRAFFIC VOLUMES ARE KEY ELEMENTS IN HOW THE CITY IS PERCEIVED BY HUMAN BEINGS. WE NEED TO DECIDE WHETHER TO MAKE THE STREETS ENJOYABLE TO WALK ALONG AT 3 MPH SPEED, OR ONLY CONVENIENT TO DRIVE ALONG AT 25-40 MPH.

PLANNING ONLY FOR DRIVING SPEEDS WILL RESULT IN UNATTRACTIVE STREETS THAT ARE BORING TO WALK ALONG. FOCUSING ON THE NEEDS OF SLOW-MOVING HUMAN BEINGS WILL RESULT IN STREETS THAT ARE INTERESTING FOR BOTH PEDESTRIANS AND DRIVERS. STREETS CAN EASILY BE DESIGNED SO THAT THEY ARE ENJOYABLE FOR BOTH - AS LONG AS TRAFFIC IS BALANCED AND SCALE AND DETAILING FAVOR PEDESTRIAN NEEDS.

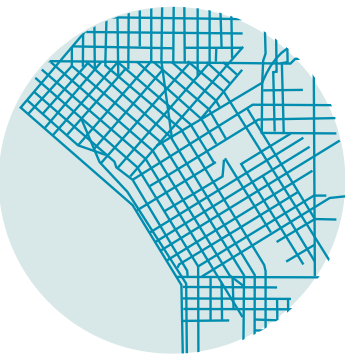
SEATTLE HAS A GOOD FOUNDATION FOR HIGH QUALITY CITY LIFE...

EXISTING PHYSICAL FORM

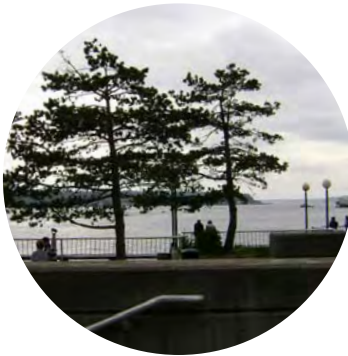
GENEROUS SIDEWALKS



VARIED STREET GRID



NATURAL AMENITIES



LOW TRAFFIC LEVELS



REASONABLE CLIMATE



POTENTIAL

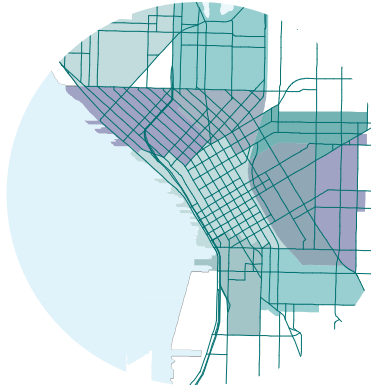
INVITE MORE PEOPLE TO WALK



AMPLE ROOM FOR BICYCLE TRACKS



OPPORTUNITIES TO LINK THE DOWNTOWN NEIGHBORHOODS

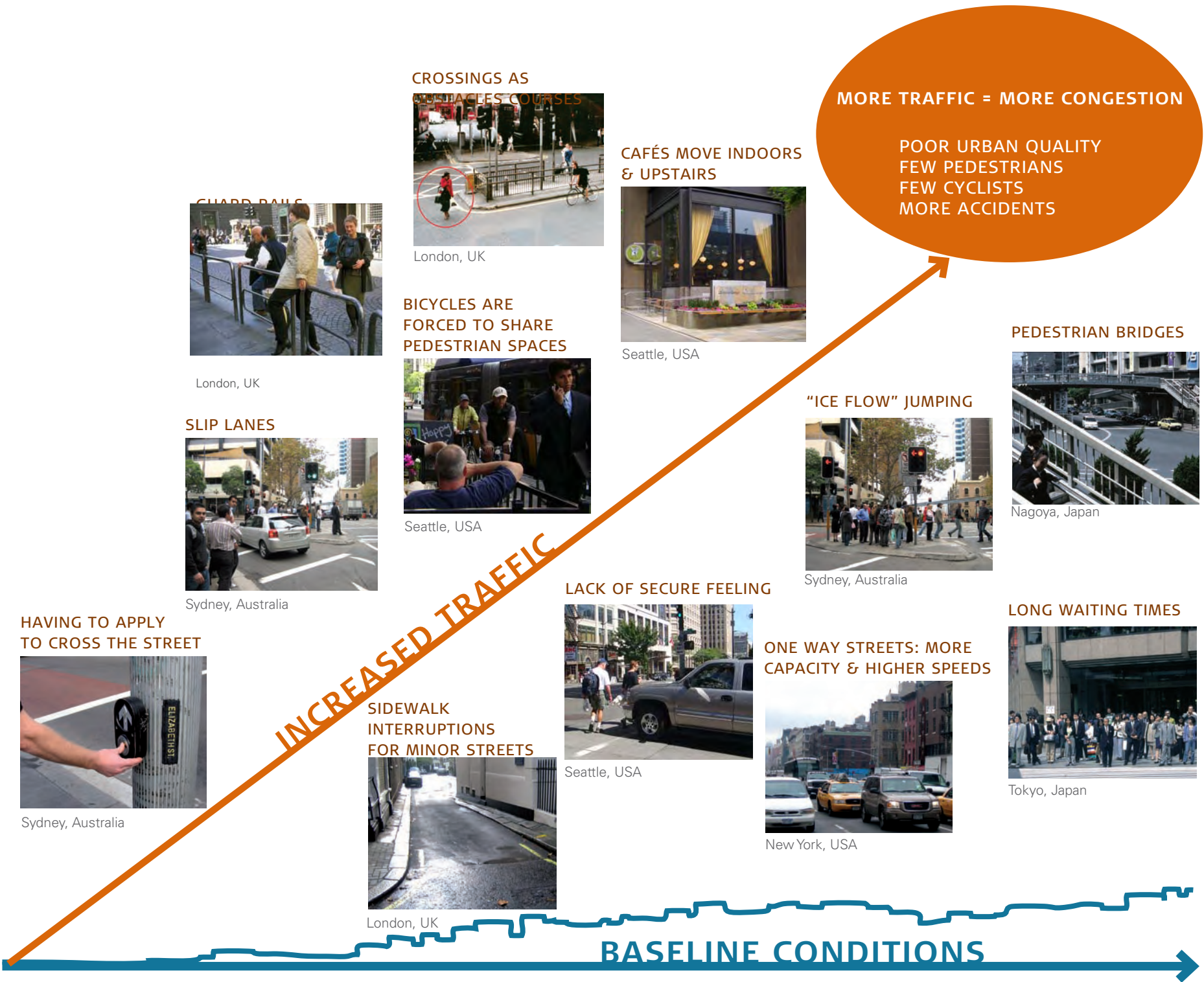


OPPORTUNITIES TO CREATE A GOOD CITY LIFE





# IF TRAFFIC CAPACITY IS PURSUED... IT WILL NEVER BE CAUGHT!



IF URBAN QUALITY IS PURSUED... THE RESULT IS A LIVELY CITY!





# WALKING IN THE CITY / BEST PRACTICES



## CROSSINGS DESIGNED FOR PEOPLE

Lights should be timed for maximum pedestrian ease, to communicate expected waiting times & facilitate clear conditions for movement.



## SIDEWALKS ACROSS SIDE STREETS

Continuous, level sidewalks across side streets and driveways encourage pedestrian rights. Traffic must slow down and become aware of others who share the city.



## DESIRE LINES IN THE CITY

Routes should be clear and free of obstacles. Sidewalks should be biased to accommodate pedestrian speed, ability, and desire.



## LIGHTING IS MORE THAN SAFETY

Lighting can add interest and art to a place as well as ensuring safety.



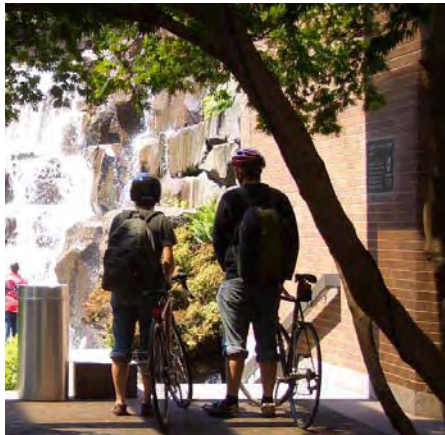
## INTERESTING GROUND FLOOR FACADES

A lively, varied procession of ground floor facades improves the pedestrian experience, offering interesting views and interaction with surroundings.



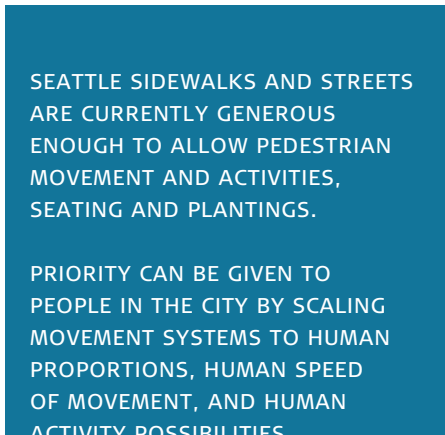
## HIGH QUALITY PUBLIC REALM

Good materials and street furniture are the next step in creating a fine environment: once people move through the space, they are encouraged to stay.



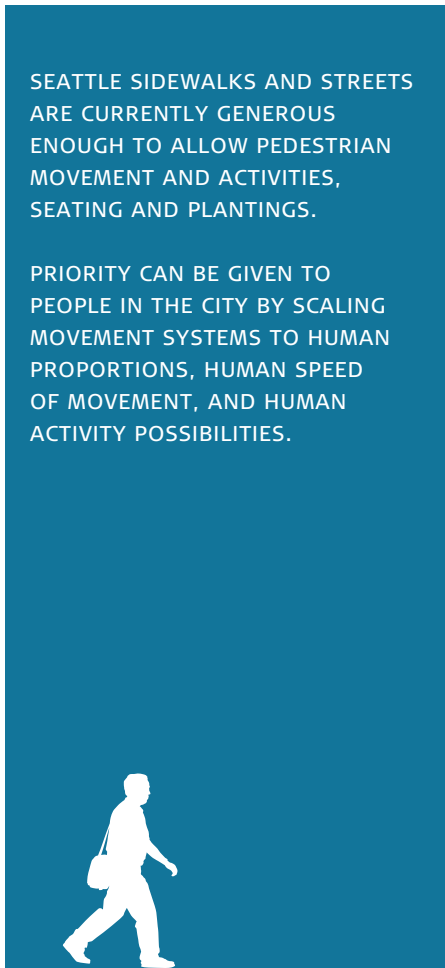
## VEGETATION & MICRO-CLIMATES

Plantings allow neighborhood character to develop and create positive micro-climates. Air moisture and cleanliness improve and the urban heat island effect is mitigated through street plantings.



SEATTLE SIDEWALKS AND STREETS ARE CURRENTLY GENEROUS ENOUGH TO ALLOW PEDESTRIAN MOVEMENT AND ACTIVITIES, SEATING AND PLANTINGS.

PRIORITY CAN BE GIVEN TO PEOPLE IN THE CITY BY SCALING MOVEMENT SYSTEMS TO HUMAN PROPORTIONS, HUMAN SPEED OF MOVEMENT, AND HUMAN ACTIVITY POSSIBILITIES.



## CYCLING IN THE CITY / BEST PRACTICES



### THE COPENHAGEN CYCLE TRACK MODEL

Bicycles are placed nearest to sidewalks, inside parking, traffic and bus lanes.



### INTERSECTIONS

Bright blue lanes at intersections announce bicycle presence. Used sparingly, they remind both cars and pedestrians of the shared road.



### ROOM FOR ALL KINDS OF CYCLISTS

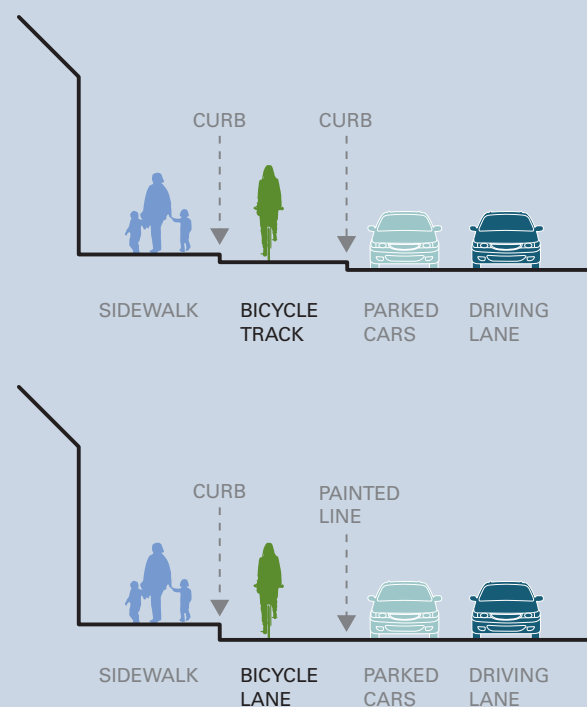
Widths are sufficient for all speeds to feel safe, with passing area and room to ride side-by-side. This encourages cyclists of all ages and types, and cyclists who ride for many reasons.



### ENJOYABLE ROUTES

If more people are to use bicycling for transportation and recreational means, available cycling routes must be attractive and inviting.

### BICYCLE TRACKS VS. BICYCLE LANES



### CASE STUDY:

An 18-20 % increase in bicycle and moped traffic, and a 9-10% decrease in car traffic is documented with the introduction of **cycle tracks**. These effects are significant, seen even as the tracks are being constructed and increasing over time after completion. More than 95% of bicycle and moped traffic is by bicycles on the streets in the survey.

With the introduction of **cycle lanes**, a 5-7% increase in bicycle and moped traffic and no change in car traffic is seen. These effects are not statistically significant.

(Trafitec 2006,Copenhagen)

A **bicycle track** is a separated and/or raised lane reserved for cyclists, usually between a parking lane and the sidewalk. This both provides a buffer to pedestrians and removes cyclists from traffic lanes in the street, offering less intimidating bicycling conditions for all cyclists.

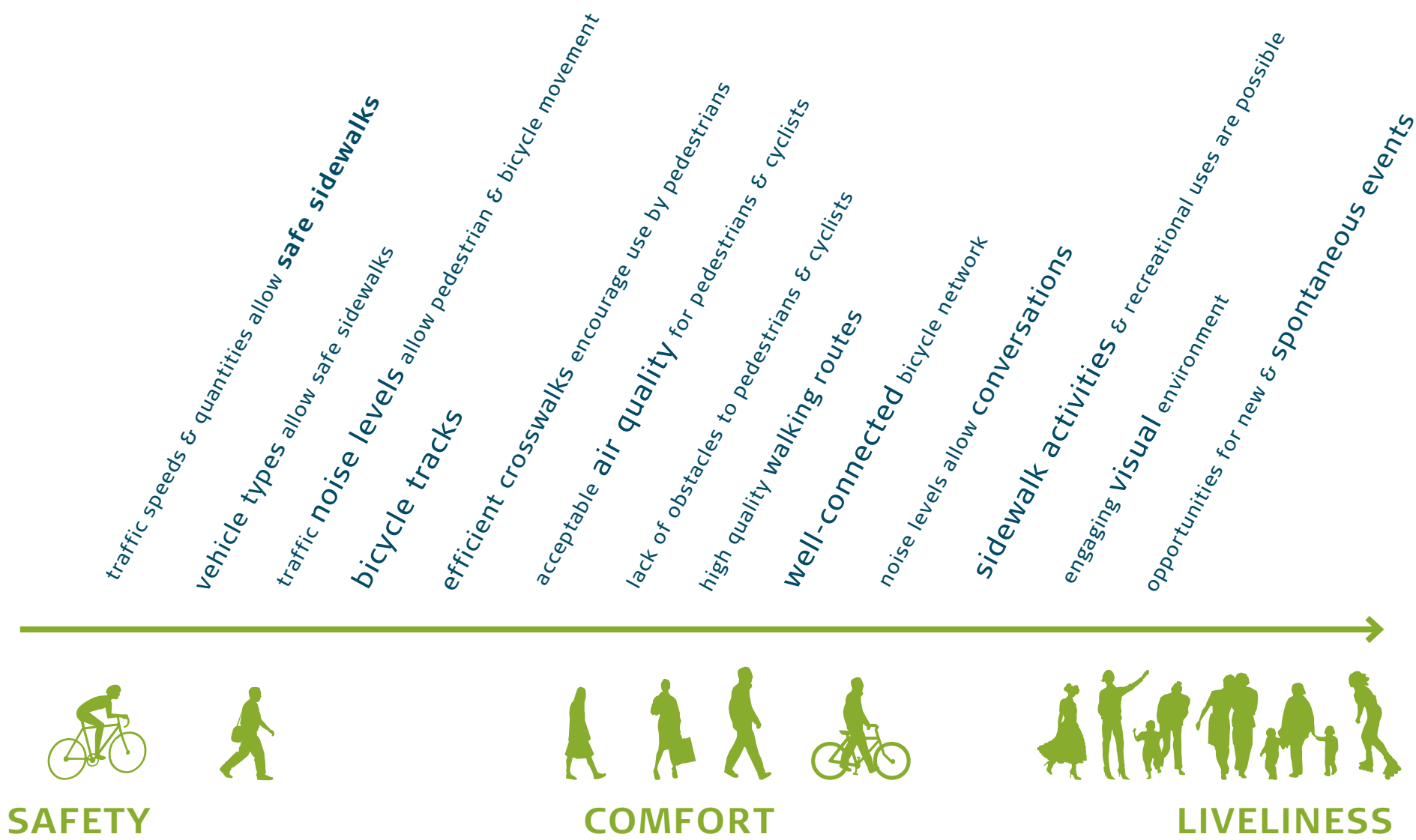
A **bicycle lane** is painted lines in the street (5 feet min. width), usually placed between the right lane of traffic and parking lane.

**"Sharrows"** (not shown) refer to painted arrows in normal traffic lanes indicating that vehicular traffic should be aware of bicyclists sharing the road.

ALL BICYCLE TRACKS IN COPENHAGEN ARE PLACED NEXT TO SIDEWALKS AND INSIDE OF ON-STREET PARKING. THIS POSITIONING MAKES BICYCLING MUCH SAFER AND ENCOURAGES CYCLISTS OF ALL AGES TO RIDE FOR COMMUTING AND RECREATION. PROMOTING BICYCLING IS ONE OF THE MOST OBVIOUS STEPS TOWARD A GREENER, HEALTHIER CITY.



# MOVING BEYOND JUST SAFETY TO COMFORT AND LIVELINESS!



IN ORDER TO CREATE A LIVELY AND HIGH QUALITY CITY THAT PEOPLE ENJOY SPENDING TIME IN, ALL THREE OF THESE FOCUS AREAS MUST BE FULLY ADDRESSED: **SAFETY, COMFORT AND LIVELINESS.**



## CHALLENGES WITH TRUCKS MEETING PEDESTRIANS AND BICYCLES

POOR VISIBILITY FOR TRUCK OPERATORS CREATES UNSAFE CONDITIONS FOR PEDESTRIANS AND BIKES. THE COMBINATION OF BIG TRUCKS AND SOFT TRAFFIC IS A DANGEROUS COCKTAIL IN TERMS OF TRAFFIC ACCIDENTS.

EMISSIONS FROM TRUCKS CREATE A MAJOR HEALTH ISSUE. ULTRA-FINE PARTICLES IN THE EXHAUST FROM TRUCKS ARE SO SMALL THAT THEY ENTER THE BLOODSTREAM VIA THE LUNGS AND THEREBY CAUSE CANCER AND CARDIOVASCULAR DISEASES.\*

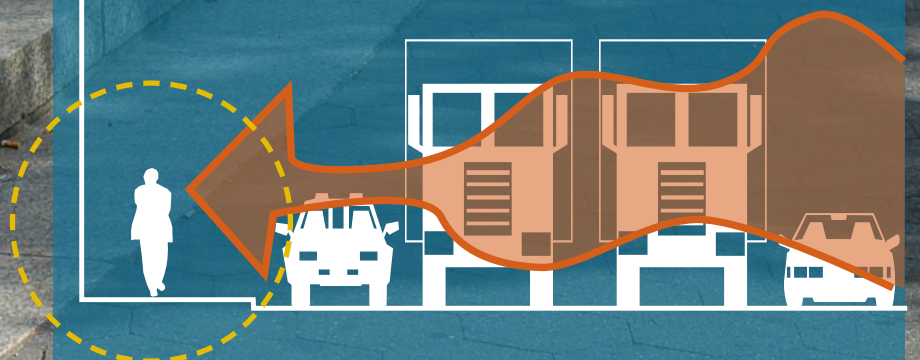
TRUCKS IN THE STREETS DRASTICALLY LOWER VISUAL/AESTHETIC QUALITIES AND SEVER SIGHTLINES ACROSS THE STREETS.

\* SOURCE: INSTITUTE OF PUBLIC HEALTH, THE FACULTY OF HEALTH SCIENCES, AARHUS UNIVERSITY, DENMARK





## HOW DOES TRAFFIC VOLUME EFFECT THE QUALITY OF THE PEDESTRIAN ENVIRONMENT?










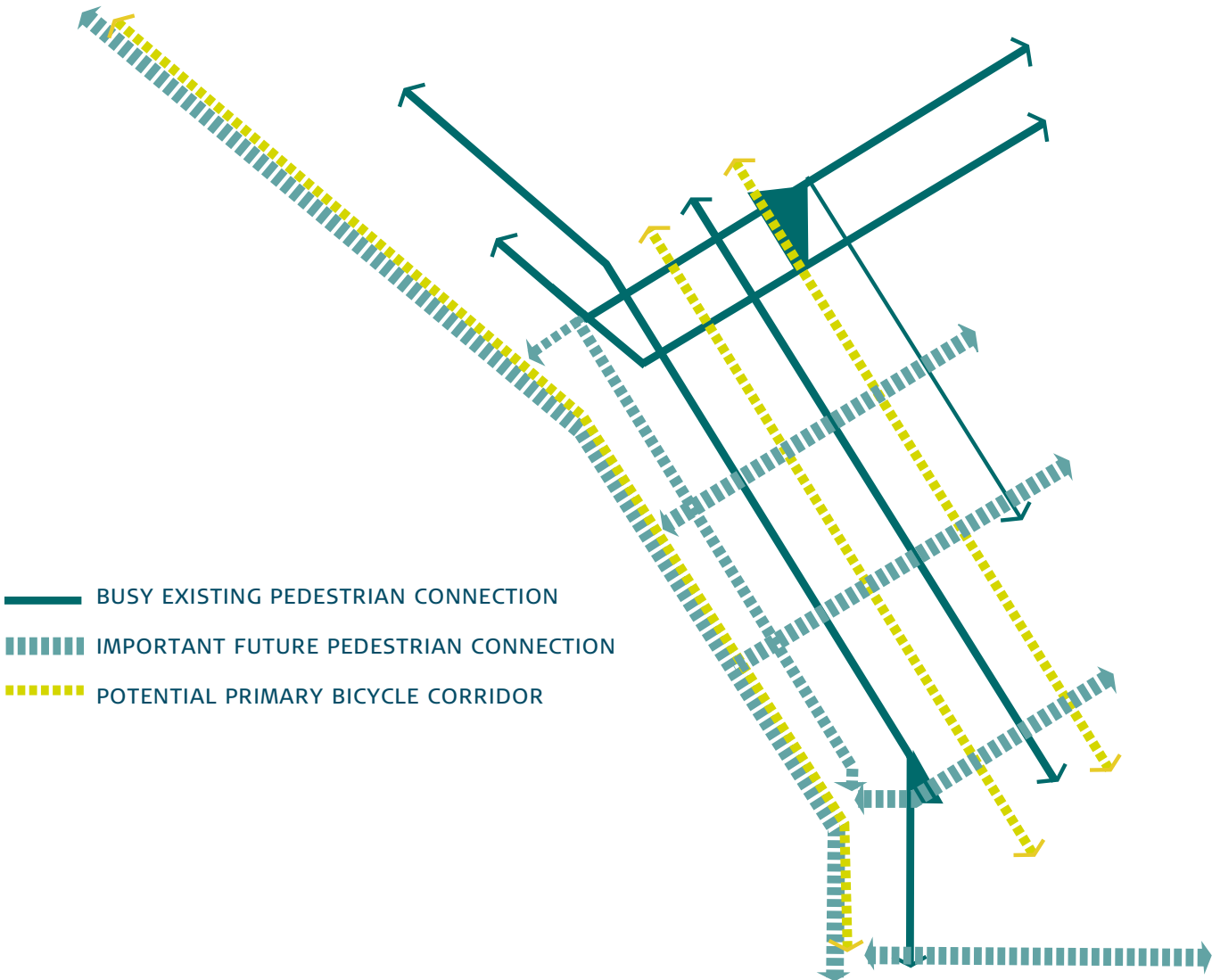
# WHAT IS A GREAT STREET FOR PEDESTRIANS?



THIS TABLE COVERS A ‘CLASSIC’ STREET SECTION WITH 2-4 LANES FOR VEHICULAR TRAFFIC AND A WIDTH OF 10-30 METERS (30-90 FEET). THE WIDTH OF ALASKAN WAY WILL ALLOW IT TO BE DESIGNED FOR HIGHER TRAFFIC VOLUMES THAN SHOWN HERE, AND CREATE GOOD QUALITIES FOR PEDESTRIANS.

	AVERAGE DAILY TOTAL	PEDESTRIAN ENVIRONMENT	ENVIRONMENTAL FACTORS NOISE / POLUTION	BICYCLE SAFETY & ENJOYMENT
<b>GREAT STREET</b> 	1000 CARS	PEDESTRIANS AND BICYCLISTS ARE ABLE TO SHARE THE ROAD WITH CARS AND CROSS SAFELY AT ANY TIME. RECREATIONAL LIFE (E.G. OUT-DOOR CAFÉS) HAS GOOD OPPORTUNITIES. OPEN AND ACTIVE FACADES CAN BE FOUND AT GROUND FLOOR LEVEL.	NO NOISE PROBLEMS. POLLUTION IS AT AN ACCEPT-ABLE LEVEL TO BREATHE AND SEE. BUILDINGS CAN HAVE WINDOWS OPEN TO THE STREET. STREET TREES AND GREENERY CAN THRIVE IF OTHER CONDITIONS ARE FAVORABLE.	BICYCLES ARE ABLE TO RIDE SAFELY IN THE TRAFFIC FLOW WITH CARS. IT WILL BE PLEASANT.
<b>GOOD STREET</b> 	5,000 CARS	MORE SEPARATION BETWEEN CARS AND PEDESTRIANS/BICYCLISTS IS NECESSARY. A DEDICATED ZONE FOR PEDESTRIANS ALONG FA-CADES IS NECESSARY. IT IS STILL POSSIBLE TO CROSS MIDBLOCK. RECREATION CAN STILL BE ENJOY-ABLE; CAFÉS AND ACTIVE FA-CADES CAN STILL BE FOUND.	ONLY SLIGHT NOISE PROBLEMS. POLLUTION IS AT ACCEPTABLE LEVELS. STREET TREES AND GREENERY CAN THRIVE IF OTHER CONDITIONS ARE FAVORABLE.	BICYCLES ARE ABLE TO RIDE SAFELY IN THE TRAFFIC FLOW WITH CARS. IT WILL BE A GOOD EXPERIENCE.
<b>OKAY STREET</b> 	10,000 CARS	PEOPLE ARE ABLE TO CROSS AT CROSSWALKS AND CAREFULLY AT MID-BLOCK. IT IS STILL POSSIBLE TO ENJOY SIDEWALK BENCHES, BUT PEOPLE WILL CHOOSE SEATING ELSE-WHERE WITH LOWER TRAFFIC IMPACT GIVEN THE OPPORTUNITY.	THERE ARE NOISE AND POLLUTION ISSUES, ESPECIALLY DURING PEAK TRAFFIC HOURS. PEOPLE ARE ABLE TO TALK, BUT NEED TO STAND CLOSE. BUILDINGS ARE NOT ABLE TO HAVE WINDOWS OPEN TO THE STREET DUE TO NOISE AND POLLUTION.	BICYCLE LANES ARE NECES-SARY AND BICYCLE TRACKS ARE ADVISED. IT WILL BE AN OKAY STREET TO BICYCLE ALONG.
<b>POOR STREET</b> 	25,000 CARS	CROSSING AT CROSSINGS ONLY. IT WILL BE UNPLEASANT TO WALK ALONG THE STREET AND THERE WILL BE NO RECREATIONAL LIFE ON SIDEWALKS.	NOISE AND POLLUTION PROBLEMS ARE SIGNIFICANT. PEOPLE ARE UN-ABLE TO HOLD A CONVERSATION.	BICYCLE TRACKS (RAISED, SEPA-RATED SPACE FOR BICYCLES) ARE NECESSARY. THE QUALITY OF BICYCLING IS VERY LOW.
<b>BAD STREET</b> 	50,000 CARS NOT FIT FOR PEDESTRIANS	CROSSING AT CROSSWALKS ONLY. WAITING TIMES ARE IN-CREASED SIGNIFICANTLY. GUARDRAILING ETC. MAY BE INTRODUCED TO PREVENT PEDES-TRIANS WALKING INTO TRAFFIC LANES. NO PEDESTRIAN QUALITY.	SEVERE NOISE AND POLLUTION PROBLEMS. AIR POLLUTION IS SUCH THAT PEOPLE WILL AVOID THIS STREET IF THEY HOPE TO MAINTAIN GOOD HEALTH. SOME OF THE MORE TOLERANT STREET TREE SPECIES ARE ABLE TO SURVIVE.	BICYCLE TRACKS (RAISED, SEPA-RATED SPACE FOR BICYCLES) ARE DEFINITELY NECESSARY. BICYCLING WILL BE UNPLEASANT, AND POLLUTION LEVELS WILL MAKE RIDING ON THIS STREET UNWISE.

# A FRAGILE PEDESTRIAN NETWORK



- SEATTLE'S CURRENT PEDESTRIAN NUMBERS ARE QUITE LOW IN COMPARISON TO OTHER CITIES'.
- TO PROMOTE WALKING AS A MODE OF TRANSPORTATION AND FOR RECREATIONAL PURPOSES, WE MUST **INVITE** PEDESTRIAN ACTIVITY. INVITATIONS ARE ABOUT **QUALITIES** OFFERED TO PEDESTRIANS.
- **MANY CARS** IN A STREET WILL **LOWER THE QUALITY** FOR PEDESTRIANS.

## SUMMARY OF PRINCIPLES & BEST PRACTICES

- DESIGN FOR PEDESTRIANS:  
FOCUS ON QUALITY, INVITATIONS, HUMAN SCALE,  
MOVEMENT AND ENJOYMENT.
- DESIGN FOR BICYCLISTS:  
SAFETY IS CRUCIAL - IF IT FEELS SAFE,  
MORE PEOPLE WILL CHOOSE TO BICYCLE.

DESIGN FOR ALL TYPES OF BICYCLISTS-  
CREATE CYCLE TRACKS, NOT JUST LANES OR SHARROWS.

- PRIORITIZE LEGIBILITY AND VIEWS
- REMEMBER THAT EVERYONE IS A PEDESTRIAN WHEN THEY  
GET OUT OF A CAR!

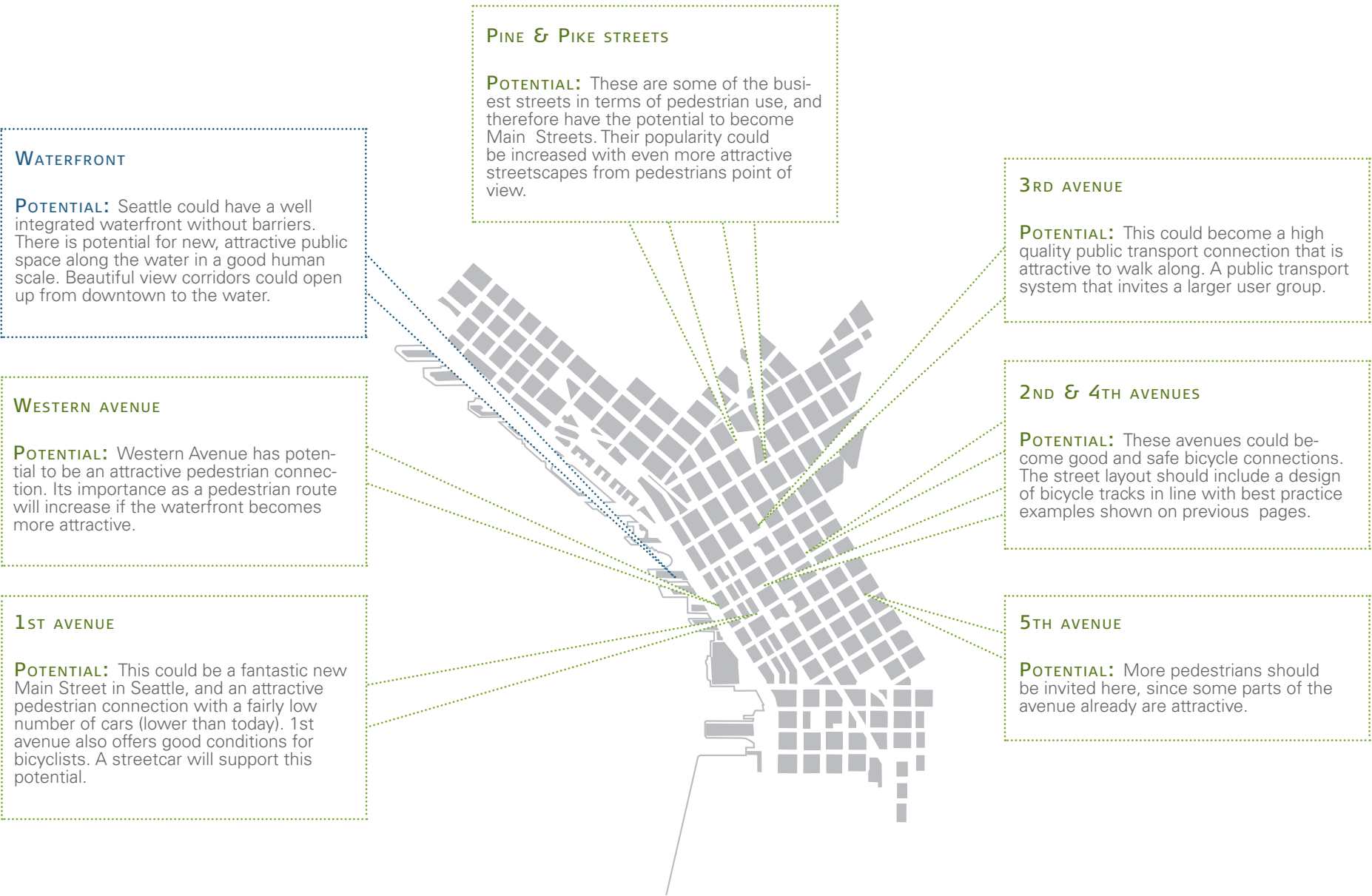
# EVALUATION







# SEATTLE'S POTENTIAL: IN A 'PEOPLE' PERSPECTIVE





# WATERFRONT

## IMPORTANT EVALUATION ISSUES:

- AN ATTRACTIVE HUMAN-SCALED WATERFRONT?
- ATTRACTIVE CONDITIONS FOR PEDESTRIANS & BICYCLISTS?
- POSSIBILITIES FOR RECREATIONAL ACTIVITIES?
- UNATTRACTIVE SIDE EFFECTS OF VEHICULAR TRAFFIC?
- VISUAL BARRIERS?
- PHYSICAL BARRIERS?

## AVENUES & STREETS

### IMPORTANT EVALUATION ISSUES:

- INVITING CONDITIONS FOR PEDESTRIANS TO WALK?
- GOOD AND SAFE CONDITIONS FOR BICYCLISTS?
- POSSIBILITIES FOR A RECREATIONAL CITY LIFE TO FLOURISH?
- POSSIBILITIES FOR INCREASING PUBLIC TRANSPORT USE?
- UNATTRACTIVE SIDE EFFECTS OF NOISE AND POLLUTION?

## PARKS, SQUARES & PLAZAS

### IMPORTANT ISSUES:

- EFFECTS ON THE PEDESTRIAN ENVIRONMENT ANALYZED HERE ARE ALSO APPLICABLE TO OPEN SPACES: THE EFFECT OF VEHICULAR TRAFFIC ON AVENUES AND STREETS WILL ALSO BE FELT IN OPEN SPACES ADJACENT TO THE TRAFFIC CORRIDORS
- OPEN SPACES MAY BE MORE NEGATIVELY IMPACTED. INVITATIONS FOR RECREATIONAL ACTIVITIES ARE MORE DEPENDENT ON THE QUALITY OF A SPACE THAN ARE INVITATIONS FOR SIMPLY WALKING IN A SPACE
- THE QUALITY OF OPEN SPACES CAN NOT BE PRESERVED IF THE SURROUNDING PEDESTRIAN NETWORK IS WEAK

# SCENARIO A:

## DEMAND MANAGEMENT/ LOW CAPITAL

**WATERFRONT**

**POTENTIAL:** An attractive and well integrated waterfront.

**CONCLUSION:** The space along the water is out-of-scale: too wide and lacking definition. The waterfront will be a vehicle-dominated place, with traffic volumes between 30,000-51,000 ADT, creating an ugly traffic barrier for pedestrians to move along and across. People will not be invited to engage in recreational activities along the water. Establishing bicycle lanes in both directions is positive, and this could become a safe cycle route by following the 'best practice'\* guidelines. The high traffic numbers will not make bicycling a pleasant experience, however, and so many cars will create a visual barrier. In terms of views to the water from downtown, a surface solution creates less of a visual barrier than an elevated solution (D or E). Scenario A would still be a grim sight that does not communicate the idea of a 'fantastic waterfront'. The waterfront will be well served with a streetcar and buses.

**WESTERN AVENUE**

**POTENTIAL:** An attractive pedestrian connection.

**CONCLUSION:** Traffic numbers remain fairly even with a maximum of 10,000 ADT, which allows for establishing an 'okay' street in pedestrian terms.

**1ST AVENUE**

**POTENTIAL:** A fantastic new pedestrian Main Street.

**CONCLUSION:** Traffic volumes nearly double in places, reaching 24,000 ADT at Madison Street. 1st Ave will not be pleasant for pedestrians: it will be difficult to have conversations, and air pollution and noise will make the street uncomfortable to walk along. Traffic numbers more than double in the historical Pioneer Square area, reaching 18,000 ADT at Main Street. 1st Ave will have low qualities for pedestrians and bicycling will not happen. There will be no recreational city life on either 1st Ave or adjacent public spaces.

**PINE & PIKE STREETS**

**POTENTIAL:** Some of the busiest streets in pedestrian terms, with potential for becoming Main Streets.

**CONCLUSION:** Traffic volumes increase on both Pine and Pike, but the negative effects of heavy traffic will be particularly problematic on intersecting avenues. This will create barriers for pedestrians when crossing avenues and lower the quality of walking along Pine and Pike as noise and pollution levels will rise and spill in from the avenues.

**3RD AVENUE**

**POTENTIAL:** A high quality public transport connection, that is attractive to walk along.

**CONCLUSION:** Public transportation will improve as 3rd Avenue is mainly reserved for transit use, aside from some sections where cars will be allowed. It will be possible to create a good public transport avenue, as long the number of buses etc. does not get high too high. A large amount of buses will produce noise and pollution problems and create visual barriers.

**2ND & 4TH AVENUES**

**POTENTIAL:** Good and safe bicycle connections.

**CONCLUSION:** These are unsafe biking routes. The potential for inviting more people to bicycle is neglected. Traffic volumes on both avenues are too high to create a good pedestrian environment.

**5TH AVENUE**

**POTENTIAL:** Invite more pedestrians to choose this route.

**CONCLUSION:** Traffic volumes do not increase significantly from today's numbers but are very high, around 20,000-25,000 ADT. 5th Ave will not invite more pedestrians to choose this route because the environment is too unattractive.



\* 'Best Practice' guidelines as shown in this document by Gehl Architects  
ADT = Average Daily Total of traffic

# SCENARIO B:

## SURFACE BOULEVARD

### WATERFRONT

**POTENTIAL:** An attractive and well integrated waterfront.

**CONCLUSION:**  
The space along the water is out-of-scale: too wide and lacking definition. The waterfront will be a vehicle-dominated place, with traffic volumes between 30,000-50,000 ADT, creating an ugly traffic barrier for pedestrians to move along and across. People will not be invited to engage in recreational activities along the water. Establishing bicycle lanes in both directions is positive, and this could become a safe cycle route by following the 'best practice'\* guidelines. The high traffic numbers will create a visual barrier and an unpleasant bicycling experience however. In terms of views from downtown to the water, a surface solution creates less of a visual barrier than an elevated solution (D or E). Scenario B would still be a grim sight that does not communicate the idea of a 'fantastic waterfront'. A bus along the water is positive, but a streetcar would probably be better.

### WESTERN AVENUE

**POTENTIAL:** An attractive pedestrian connection.

**CONCLUSION:**  
Traffic numbers are kept at a fair level with a max. 10,400 AWDT, that allows for establishing an 'okay' street in pedestrian terms.

### 1ST AVENUE

**POTENTIAL:** A fantastic new pedestrian Main Street.

**CONCLUSION:**  
Traffic volumes reach very critical levels at 25,000 ADT near Madison Street. 1st Ave will not be pleasant for pedestrians: it will be hard to have conversations and air pollution and noise will make the street uncomfortable to walk along. Traffic numbers more than double in the historic Pioneer Square area, reaching 22,000 ADT at Main Street. 1st Ave will have low qualities for pedestrians, and bicycling will not happen. There will be no recreational city life on either 1st Ave or in adjacent public spaces. The new streetcar is a positive aspect.

### PINE & PIKE STREETS

**POTENTIAL:** Some of the busiest streets in pedestrian terms, with potential for becoming Main Streets.

**CONCLUSION:**  
Traffic volumes increase on both Pine and Pike, but the negative effects of heavy traffic will be particularly problematic on intersecting avenues. This will create barriers for pedestrians when crossing avenues and lower the quality of walking along Pine and Pike as noise and pollution levels will rise and spill in from the avenues.

### 3RD AVENUE

**POTENTIAL:** A high quality public transport connection that is attractive to walk along.

**CONCLUSION:**  
Public transportation will improve as 3rd Avenue is mainly reserved for transit use, aside from some sections where cars will be allowed. It will be possible to create a good public transport avenue, as long the number of buses etc. does not get high too high. A large amount of buses will produce noise and pollution problems and create visual barriers.

### 2ND & 4TH AVENUE

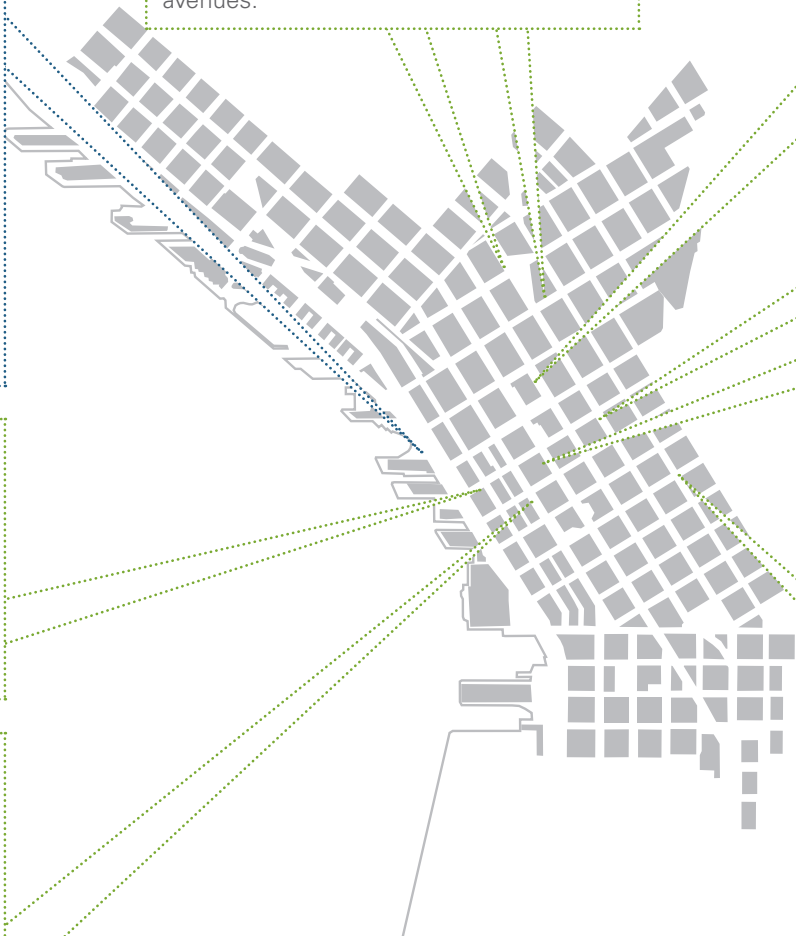
**POTENTIAL:** Good and safe bicycle connections. Attractive for pedestrians.

**CONCLUSION:**  
These are unsafe biking routes. The potential for inviting more people to bicycle is neglected. Traffic volumes are even higher than in scenario A, reaching approx. 23,000 ADT on 2nd Ave and up to 25,400 ADT on 4th Ave. This is very far from a good pedestrian or bicycling environment.

### 5TH AVENUE

**POTENTIAL:** Invite more pedestrians to choose this route.

**CONCLUSION:**  
The traffic volumes do not increase significantly from today's numbers, but are very high around 20,000-25,000 ADT. 5th Avenue will not invite more pedestrians to choose this route since the environment is too unattractive.



\* 'Best Practice' guidelines as shown in this document by Gehl Architects  
ADT = Average Daily Total of traffic

# SCENARIO C:

## ALASKAN WAY - WESTERN COUPLET

**WATERFRONT**

**POTENTIAL:** An attractive and well integrated waterfront

**CONCLUSION:** This scenario has less traffic on Alaskan Way than A and B, since a lot is placed on Western Ave instead. Traffic numbers still rise above 26,000 ADT, so unfortunately the waterfront is still not very attractive. The suggested configuration creates an out-of-scale space, and the promenade between the waterfront and Alaskan Way is not very inviting for recreational activities. It is possible to establish a safe bicycle route here if the 'best practices'\* are applied. A surface solution creates less of a visual barrier than the elevated constructions in the other scenarios. Public transport in the form of a streetcar and buses is positive.

**WESTERN AVENUE**

**POTENTIAL:** An attractive pedestrian connection.

**CONCLUSION:** Traffic numbers will increase more than 250% to above 26,000 ADT. The potential for creating an attractive pedestrian connection is lost. A double barrier is created when both Western Ave and Alaskan Way have heavy traffic. The bicycle lane is positive if it follows the 'best practice' guidelines, but heavy traffic will not make it particularly pleasant to bicycle along Western Ave.

**1ST AVENUE**

**POTENTIAL:** A fantastic new pedestrian Main Street.

**CONCLUSION:** Traffic numbers here are higher than in scenarios A and B. The amount of traffic is more than double current levels reaching critical levels of 26,000 ADT at Madison Street. There will be NO good qualities for pedestrians. Traffic volumes in the historic Pioneer Square area jump to 22,000 ADT. There will be no recreational city life on either 1st Ave or in adjacent public spaces. The new streetcar is positive.

**PINE & PIKE STREETS**

**POTENTIAL:** Some of the busiest streets in pedestrian terms, with potential for becoming Main Streets.

**CONCLUSION:** Traffic volumes increase on both Pine and Pike, but the negative effects of heavy traffic will be particularly problematic on intersecting avenues. This will create barriers for pedestrians when crossing avenues and lower the quality of walking along Pine and Pike as noise and pollution levels rise and spill in from the avenues.

**3RD AVENUE**

**POTENTIAL:** A high quality public transport connection, that is attractive to walk along.

**CONCLUSION:** Public transportation will improve as 3rd Avenue is mainly reserved for transit use, aside from some sections where cars will be allowed. It will be possible to create a good public transport avenue, as long the number of buses etc. does not get high too high. A large amount of buses will produce noise and pollution problems and create visual barriers.

**2ND & 4TH AVENUES**

**POTENTIAL:** Good and safe bicycle connections.

**CONCLUSION:** These will be unsafe biking routes. The potential of inviting more people to choose the bike is neglected. The traffic volumes rise even higher than in scenario A and partially than in scenario B. Traffic levels increase to 24,000 ADT on 2nd Ave and up to 25,000 ADT on 4th Ave. We are very far from an inviting pedestrian environment.

**5TH AVENUE**

**POTENTIAL:** Invite more pedestrians to choose this route.

**CONCLUSION:** Traffic volumes do not rise significantly from current numbers but are still very high, around 20,000-25,000 ADT. 5th Ave will not invite more pedestrians to choose this route since the environment is too unattractive.

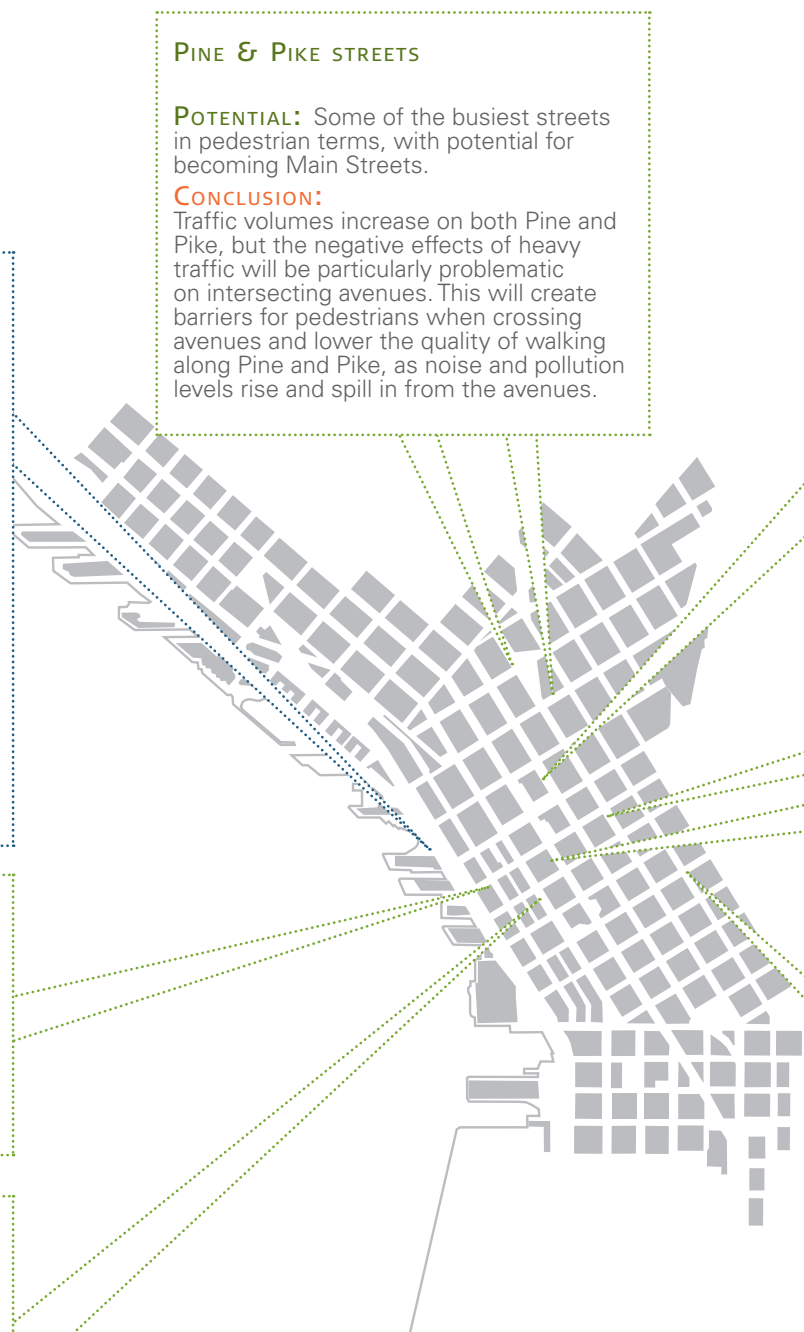


\* 'Best Practice' guidelines as shown in this document by Gehl Architects  
ADT = Average Daily Total of traffic



# SCENARIO D:

## 4-LANE ELEVATED



### WATERFRONT

**POTENTIAL:** An attractive and well integrated waterfront.

**CONCLUSION:**  
An unattractive space is created under the two elevated highways, creating problems similar to today's situation. Traffic on Alaskan Way will more than double. The space along the water will not be very attractive and not invite recreational activities. It is possible to establish a safe\* (but not very attractive) bicycle route on Alaskan Way. The elevated highways will create a massive visual barrier between the downtown and the water, just as now, where it is nearly impossible to see the water from downtown. The scenario does not propose public transport along the water, which off course is a bad idea if we want more people to use public transport .

### WESTERN AVENUE

**POTENTIAL:** An attractive pedestrian connection.

**CONCLUSION:**  
Traffic numbers are kept at a fair level with a max. at 8,400 ADT, that allows for establishing a fairly good street in pedestrian terms.

### 1ST AVENUE

**POTENTIAL:** A fantastic new pedestrian Main Street.

**CONCLUSION:**  
Traffic volumes increase to 21,000 ADT at Madison Street. The pedestrian environment will be very low quality, and 1st Ave will not be an attractive walking connection. There will be no recreational city life on either 1st Avenue or in adjacent public spaces. Traffic levels reach 17,000 ADT in the historic Pioneer Square area, which will create a problem for pedestrians there.

### PINE & PIKE STREETS

**POTENTIAL:** Some of the busiest streets in pedestrian terms, with potential for becoming Main Streets.

**CONCLUSION:**  
Traffic volumes increase on both Pine and Pike, but the negative effects of heavy traffic will be particularly problematic on intersecting avenues. This will create barriers for pedestrians when crossing avenues and lower the quality of walking along Pine and Pike, as noise and pollution levels rise and spill in from the avenues.

### 3RD AVENUE

**POTENTIAL:** A high quality public transport connection, that is attractive to walk along.

**CONCLUSION:**  
Public transportation will improve as 3rd Avenue is mainly reserved for transit use, aside from some sections where cars will be allowed. It will be possible to create a good public transport avenue, as long the number of buses etc. does not get high too high. A large amount of buses will produce noise and pollution problems and create visual barriers.

### 2ND & 4TH AVENUES

**POTENTIAL:** Good and safe bicycle connections. Attractive for pedestrians.

**CONCLUSION:**  
It will be possible to create safe biking routes if 'best practice'\* guidelines are followed. Traffic numbers will rise compared with today, increasing to approx. 17,600 ADT on 2nd Ave and up to 20,000 ADT on 4th Ave. An attractive pedestrian environment is still not created.

### 5TH AVENUE

**POTENTIAL:** Invite more pedestrians to choose this route.

**CONCLUSION:**  
Traffic volumes will rise above 24,000 ADT. The areas closest to Pine and Pike Streets are especially challenging, with high traffic numbers. The situation improves further south, with lower traffic numbers. It will be possible to establish a fairly good pedestrian environment in the southern part of 5th Ave, but will be difficult in the northern part.

\* 'Best Practice' guidelines as shown in this document by Gehl Architects  
ADT = Average Daily Total of traffic

# SCENARIO E:

## 4-LANE INTEGRATED ELEVATED

### WATERFRONT

**POTENTIAL:** An attractive and well integrated waterfront.

**CONCLUSION:** Unattractive spaces are created on top of the elevated structure as well as along the sides. The space on top of the structure is unsafe and unattractive, and likely to remain unused by pedestrians or bicyclists. An unsafe space is created along the waterfront, with no 'eyes on the promenade'. No cars will pass by to add to the flow of people, so people walking here alone will feel very isolated. The traffic on the other side of the structure is not that heavy, but will create an extremely unpleasant place for both pedestrians and bicyclists, who will be squeezed between a highway structure and surface traffic. There is very poor access to the water through the structure, which will also create a massive visual barrier for the view from downtown to the water. Scenario E does not propose public transport along the water, which is a bad idea we want more people to use public transport. This creates a LOW QUALITY waterfront for pedestrians and bicyclists.

### WESTERN AVENUE

**POTENTIAL:** An attractive pedestrian connection.

**CONCLUSION:** Traffic numbers rise to a maximum of 12,800 ADT, which allows for establishing an 'okay' street in pedestrian terms. It will also be an attractive bicycle route, and safe conditions for bikes may be created if the 'best practice'\* guidelines are followed.

### 1ST AVENUE

**POTENTIAL:** A fantastic new pedestrian Main Street.

**CONCLUSION:** Traffic increases in comparison to current levels, to above 23,000 ADT. The pedestrian environment will become very unattractive and there will be no recreational city life on 1st Avenue or in adjacent public spaces. As in other scenarios, the historic Pioneer Square area will experience very heavy traffic, around 18,000 ADT.

### PINE & PIKE STREETS

**POTENTIAL:** Some of the busiest streets in pedestrian terms, with potential for becoming Main Streets.

**CONCLUSION:** Traffic volumes increase on both Pine and Pike, but the negative effects of heavy traffic will be particularly problematic on intersecting avenues. This will create barriers for pedestrians when crossing avenues and lower the quality of walking along Pine and Pike as noise and pollution levels will rise and spill in from the avenues.

### 3RD AVENUE

**POTENTIAL:** A high quality public transport connection that is attractive to walk along.

**CONCLUSION:** Public transportation will improve, as 3rd Avenue is mainly reserved for transit use, aside from a few sections where some cars will be allowed. It will be possible to create a good public transport avenue if the number of buses etc. does not get too high. Too many buses produce problems with noise and pollution, and create visual barriers.

### 2ND & 4TH AVENUES

**POTENTIAL:** Good and safe bicycle connections. Attractive for pedestrians.

**CONCLUSION:** It will be possible to create safe biking routes if 'best practice'\* guidelines are followed. Traffic numbers will rise compared with today, reaching 19,000 ADT on 2nd Ave and rising above 19,000 ADT on 4th Ave. An attractive pedestrian environment will not created.

### 5TH AVENUE

**POTENTIAL:** Invite more pedestrians to choose this route.

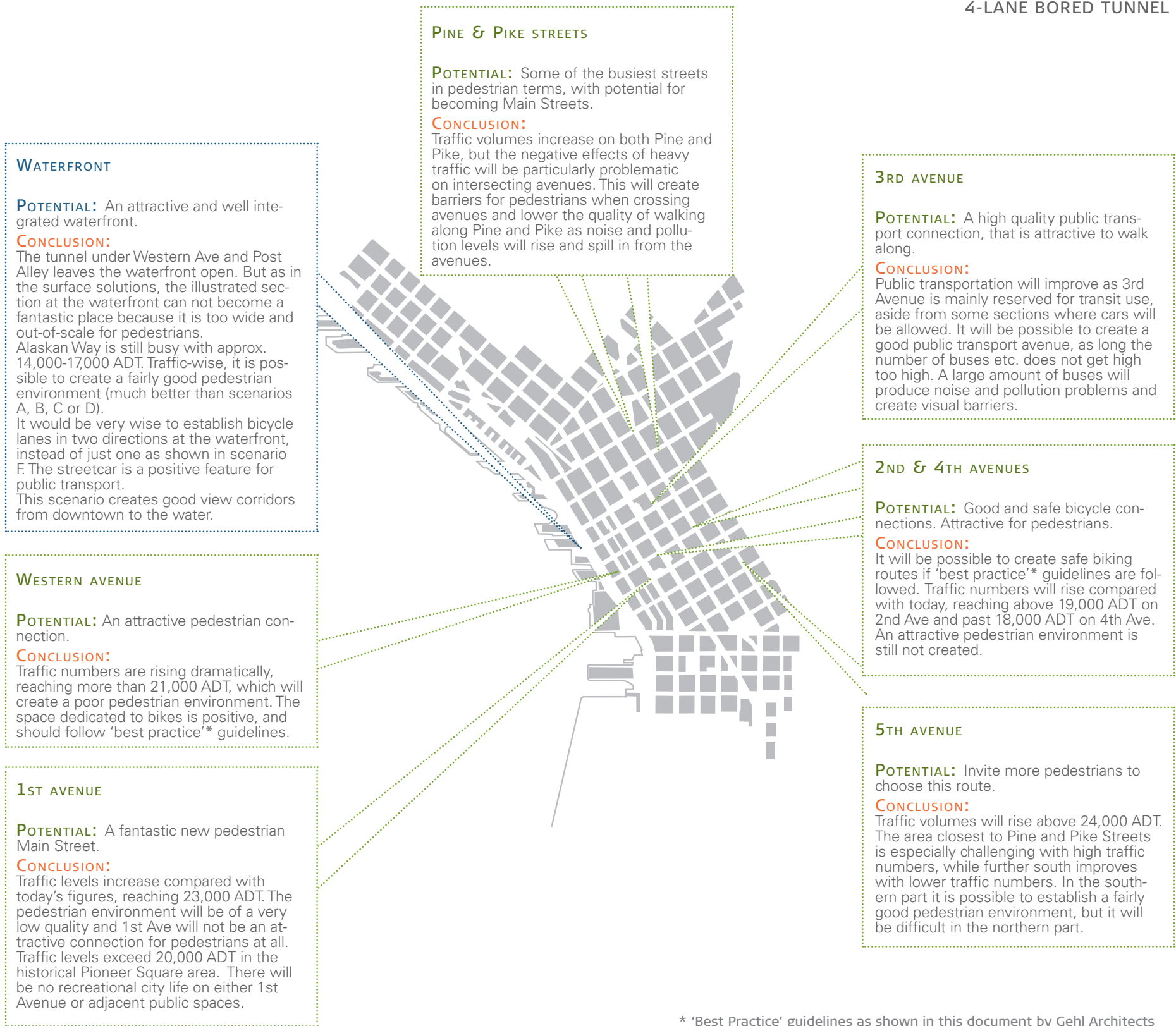
**CONCLUSION:** The traffic volumes do not rise significantly, although they exceed 24,000 ADT in some places. This will not become an attractive pedestrian connection.

\* 'Best Practice' guidelines as shown in this document by Gehl Architects  
ADT = Average Daily Total of traffic



# SCENARIO F:

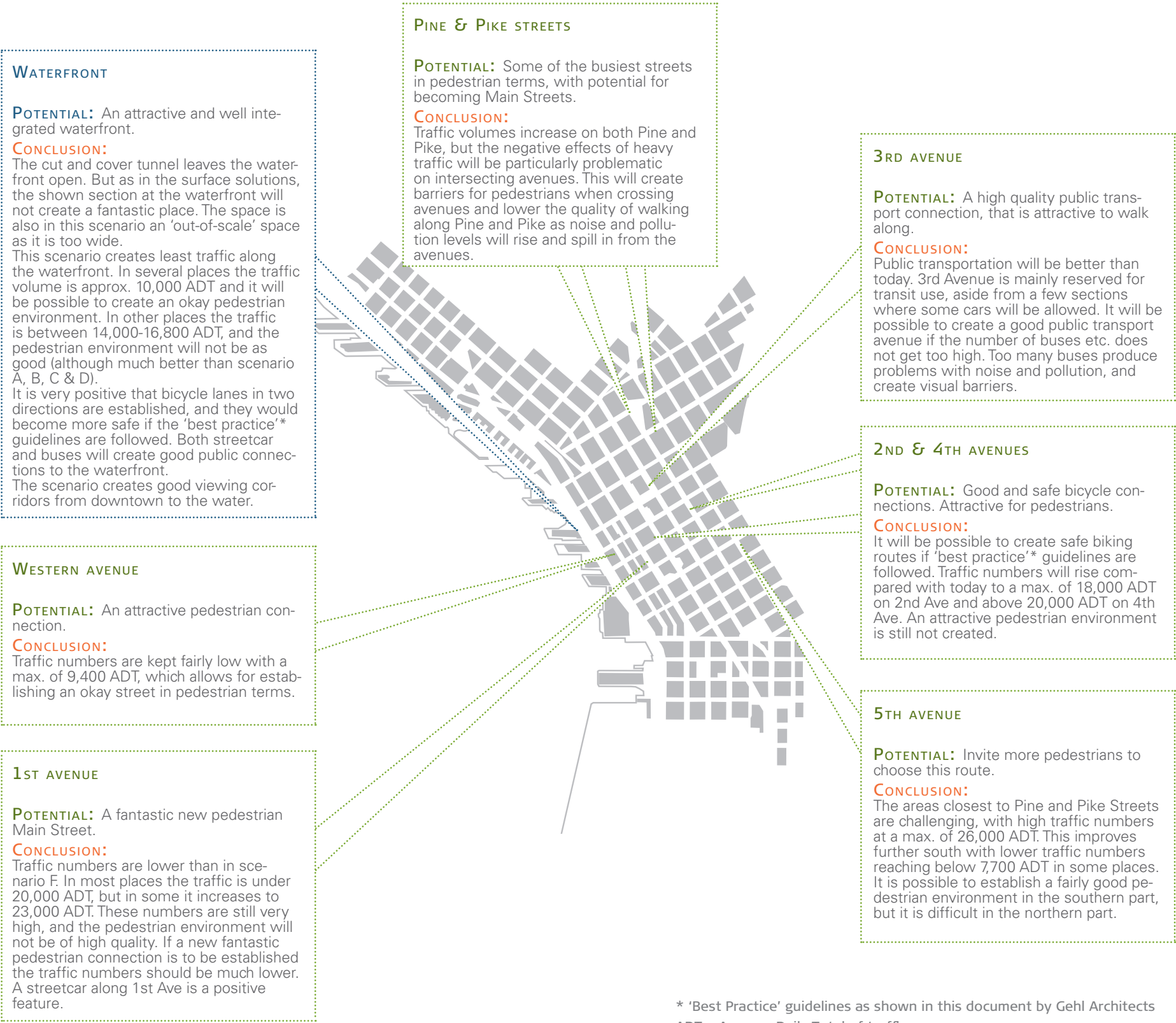
## 4-LANE BORED TUNNEL



\* 'Best Practice' guidelines as shown in this document by Gehl Architects  
ADT = Average Daily Total of traffic

# SCENARIO G:

## 4-LANE CUT & COVER TUNNEL



\* 'Best Practice' guidelines as shown in this document by Gehl Architects  
ADT = Average Daily Total of traffic

# SCENARIO H:

## 4-LANE LIDDED TRENCH

### WATERFRONT

**POTENTIAL:** An attractive and well integrated waterfront.

**CONCLUSION:**

The lidded trench does not create as open a waterfront as in scenarios F and G, since the ventilation shaft in the middle will be a disturbance - visually as well as in terms of noise and pollution. As illustrated in the section drawing, the shaft blocks views for a standing person. Scenario H creates more traffic along Alaskan Way than F and G. Traffic numbers will rise above 22,000 ADT. The waterfront will not be an attractive place for pedestrians, since there will be negative effects from noise and pollution, from the surface traffic as well as the more than 55,000 ADT in the lidded trench. As the trench is only for a short distance, there are adverse effects to the north and south where the road surfaces or is elevated.

It is positive that bicycle lanes in two directions are established, and they would become more safe if the 'best practice'\* guidelines are followed. But driving behind the ventilation shaft will not be a very pleasant route for bicyclists.

The layout of the trench with the ventilation shaft will lower the quality of views from downtown to the water.

The streetcar is a positive aspect.

### WESTERN AVENUE

**POTENTIAL:** An attractive pedestrian connection.

**CONCLUSION:**

Traffic numbers are kept fairly low with a max. of 9,500 ADT, which allows for establishing an okay street in pedestrian terms.

### 1ST AVENUE

**POTENTIAL:** A fantastic new pedestrian Main Street.

**CONCLUSION:**

The traffic will increase to around 24,000 ADT near Madison Street. The pedestrian environment will become very unattractive and there will be no recreational city life on either 1st Ave or adjacent public spaces. As in other scenarios, the historic Pioneer Square area will have very heavy traffic, at 20,000 ADT.

### PINE & PIKE STREETS

**POTENTIAL:** Some of the busiest streets in pedestrian terms, with potential for becoming Main Streets.

**CONCLUSION:**

Traffic volumes increase on both Pine and Pike, but the negative effects of heavy traffic will be particularly problematic on intersecting avenues. This will create barriers for pedestrians when crossing avenues and lower the quality of walking along Pine and Pike as noise and pollution levels will rise and spill in from the avenues.

### 3RD AVENUE

**POTENTIAL:** A high quality public transport connection, that is attractive to walk along.

**CONCLUSION:**

Public transportation will improve as 3rd Avenue is mainly reserved for transit use, aside from some sections where cars will be allowed. It will be possible to create a good public transport avenue, as long the number of buses etc. does not get high too high. A large amount of buses will produce noise and pollution problems and create visual barriers.

### 2ND & 4TH AVENUES

**POTENTIAL:** Good and safe bicycle connections. Attractive for pedestrians.

**CONCLUSION:**

It will be possible to create safe biking routes if 'best practice'\* guidelines are followed. Traffic numbers will rise compared with today, rising above 18,700 ADT on 2nd Ave and above 19,000 ADT on 4th Ave.

An attractive pedestrian environment is still not created.

### 5TH AVENUE

**POTENTIAL:** Invite more pedestrians to choose this route.

**CONCLUSION:**

The area closest to Pine and Pike Streets is challenging, with high traffic numbers at a max. of 24,000 ADT; but this improves further south with lower traffic numbers. It is possible to establish a fairly good pedestrian environment in the southern part, but difficult in the northern part.



\* 'Best Practice' guidelines as shown in this document by Gehl Architects  
ADT = Average Daily Total of traffic

## SUMMARY OF SCENARIO EVALUATIONS

- NONE OF THE SCENARIOS OFFER A STRATEGY THAT TAKES FULL ADVANTAGE OF SEATTLE'S KEY STRENGTHS.
- NONE OF THE SCENARIOS PROPOSE AN OVERALL POSITIVE PEDESTRIAN ENVIRONMENT, TAKING BOTH WATERFRONT AND DOWNTOWN INTO ACCOUNT.
- NONE OF THE SCENARIOS CREATE A NICE WATERFRONT AT A GOOD HUMAN SCALE THAT IS POSSIBLE TO ACTIVATE WITH HUMAN LIFE.
- THE LESS VEHICULAR TRAFFIC ON THE SURFACE, THE BETTER. SCENARIO F TAKES MORE TRAFFIC INTO THE TUNNEL, BUT IT ALSO CREATES MORE SURFACE TRAFFIC THAN G AND H. THE QUALITIES OF SCENARIO G THAT CREATE THE LEAST SURFACE TRAFFIC WOULD BEST BENEFIT PEDESTRIAN LIFE - BUT G STILL CREATES HIGH TRAFFIC VOLUMES ON THE SURFACE, SO THE PEDESTRIAN QUALITY WILL STILL BE POOR ON MOST STREETS.
- A DOUBLE-EDGED STRATEGY IS CALLED FOR: GET TRAFFIC UNDER GROUND *AND* START LOWERING TRAFFIC VOLUMES ON THE SURFACE. DISCOURAGE MORE VEHICULAR TRAFFIC AND INVITE MORE PEOPLE TO WALK, BICYCLE AND TAKE PUBLIC TRANSPORTATION.

- THE TWO SCENARIOS THAT OFFER ELEVATED STRUCTURES ARE COUNTER-PRODUCTIVE IN TERMS OF ACTIVATING THE PUBLIC SPACE ALONG THE WATERFRONT, AND IN FACT MAY CREATE SERIOUS SAFETY CONCERNS.
- THE PROCESS OF DEMOLITION AND CONSTRUCTION MUST ALSO BE CONSIDERED IN RELATION TO THE QUALITY OF PEDESTRIAN SPACE. NEW CULTURES AND HABITS CAN DEVELOP WHILE WORK IS IN PROGRESS, BY PHASING IN TEMPORARY ACTIVITIES, LEASING STOREFRONTS AT LOW RENTS TO CULTURAL AND DIVERSE ORGANIZATIONS AND EVENTS, AND BUILDING SMALLER SCALE, BEAUTIFUL PLACES. PEOPLE WILL ADAPT THEIR HABITS OVER TIME, BUT ONLY IF THE NEW SPACES ARE OF HIGH QUALITY. SCENARIO F OFFERS THE BEST POTENTIAL FOR THE LEAST SURFACE DISRUPTION.
- HABITS TAKE TIME TO DEVELOP AND CITIES TAKE TIME TO BECOME LIVELY. ECONOMIC COSTS MUST BE WEIGHED AGAINST LONG TERM COSTS AND GAINS, FOR INNOVATIVE AND SUSTAINABLE DEVELOPMENT AND GROWTH.

## OVERALL CONCLUSIONS:

- A SCENARIO THAT PROVIDES HIGH QUALITY URBAN SPACES IS ONE THAT REDUCES TRAFFIC CAPACITY IN THE CITY.
- THE PURSUIT OF TRAFFIC CAPACITY WILL *NOT* RESULT IN A CITY WITH OPTIMAL URBAN LIFE.
- CYCLE ROUTES MUST BE PROTECTED. NEW ROUTES AND A TRACK SYSTEM MUST BE FURTHER DEVELOPED.
- THE WATERFRONT MUST BE CONSIDERED AS PART OF THE CITY: THE QUALITY OF THE WATERFRONT IS DEPENDENT ON THE QUALITY OF THE CITY, AND VICE VERSA. IN THE FUTURE, BOTH WATERFRONT AND DOWNTOWN MUST BE WINNERS!